CLAIMS

1. A stream distribution system comprising a stream distribution server, a plurality of terminal devices each having a information reproduction function, and a local area network for connecting both of said stream distribution server and said terminal devices, wherein

said stream distribution server comprises:

reception means for receiving a stream data of a digital form transmitted through a broadcasting network or a communication network;

selection means for selecting a predetermined unit of information from the stream data received by said reception means based on a distribution condition set by said terminal device which has an information reproduction function;

file I/O means for controlling a file device under management of said stream distribution server and for outputting information selected by said selection means to said file device; and

transmission means for transmitting information selected by said selection means to said terminal device after executing a predetermined processing according to a limitation of a preset data transmission band.

2. The stream distribution system according to claim 1, wherein

said stream data is constructed with information on a packet unit, and a packet identifier for identifying data in a packet is added to each packet, and

said selection means includes means for receiving a plurality of said stream data transmitted through said broadcasting network and a plurality of said stream data transmitted through said communication network in the lump, and for mixing or re-multiplexing each of said stream data.

3. The Stream distribution system according to claim 1, wherein said selection means includes an attention request from said terminal device as said distribution condition, and said selection means selects and extracts the predetermined unit information to which attention is requested from said terminal device from the stream data received by said reception means by referring to identification information for identifying information on the predetermined unit which constructs said stream data.

4. The stream distribution system according to claim 1, wherein said transmission means includes filter means for adjusting said transmission band when said selected information is transmitted to said terminal device within a limited range of said transmission band corresponding to an amount of a transmission data for each unit time.

5. The stream distribution system according to

claim 1, wherein said selection means outputs the stream data to said file I/O means when generating a recording request from said terminal device or suiting a predetermined recording condition, and said file I/O means stores the stream data received from said selection means.

6. A stream distribution system comprising:

a stream distribution server, a plurality of terminal devices each having a information reproduction function, and a local area network connecting both of said stream distribution server and said terminal device, wherein

said stream distribution server targets the stream data constructed with information on a packet unit, wherein an identifier to identify a type of data in the packet is added to each packet, and comprises:

a plurality of reception means for receiving said stream data transmitted through a broadcasting network or a communication network;

selection means capable of connecting said plurality of reception means, for mixing or re-multiplexing a plurality of said stream data input from said reception means, for selecting and extracting a predetermined unit of information which coincides with the attention and recording request accepted from said terminal device by referring to the identification information to identify the predetermined unit of

information which constructs said stream data, and for branching and distributing the selected and extracted information to said transmission means or said file I/O means corresponding to said terminal device;

transmission means for transmitting to said terminal device by using said filter means to adjust the transmission band of the stream data received from said selection means on a limitation of the predetermined data transmission band; and

file I/O means for controlling a file device under management of said stream distribution server and for outputting information selected by said selection means to said file device.

7. The stream distribution system according to claim 6, wherein said file I/O means includes means for outputting the stored information read from said file device to said selection means when suiting a request from said terminal device or a pregiven condition.

8. The stream distribution system according to claim 6, wherein said filter means includes a priority table describing a correspondence between said packet identification information and a packet priority, obtains said packet priority for each packet unit in said stream data referring to said priority table, and adjusts the transmission band of said stream data by performing a packet filtering based on said packet priority.

9. The stream distribution system according to claim 8, further comprising

setting means for setting a limitation of the transmission band allocated to said terminal device according to a use state of the network between the stream distribution system and said terminal device and for setting said priority table included said filter means, wherein

said transmission means receives the stream data from said selection means, and transmits the stream data to said terminal device after adjusting an amount of data to keep a limitation of the transmission band set by said setting means by using said filter means.

10. The stream distribution system according to claim 6, wherein said setting means controls said setting means, said file I/O means and said transmission means according to a storage data reading request from said terminal device, and transmits said stream data stored in said file device to said terminal device through said file I/O means, said selection means and said transmission means.

11. The stream distribution system according to claim 6, wherein

said setting means accepts the attention request or the recording request from said terminal device, and changes a setting of the said reception means, a branch setting of said selection means and a setting of said

transmission means or the said file I/O means according to the request, and

said selection means outputs the stream data received from said reception means or said file I/O means to said transmission means at the attention request, or to the file I/O means at the recording request according to a said branch instruction.

12. The stream distribution system according to claim 6, wherein

said selection means includes means for being valid or invalid for transmission of the stream data to said terminal device based on a flag information, and pauses transmission of the stream data to said terminal device by turning off said flag information according to a pause request from said terminal device, and restarts transmission of the stream data by turning on said flag information according to a resume request from said terminal device.

13. The stream distribution system according to claim 12, wherein

said setting means includes means for controlling said selection means and said file I/O means according to a pause request and a resume request from said terminal device, for interrupting transmitting the stream data, which is transmitted to said terminal device, to said terminal device and storing the stream data to said file device through said file I/O device

according to the pause request, and for reading the stream data, which has been stored and untransmitted, to said file I/O means by a first-in-first-out processing in parallel with storing the stream data to said file device and transmitting them to said terminal device through said selection means and said transmission means.

14. The stream distribution system according to claim 9, further comprising

content information management means for managing program information and data information, which are multiplexed in the stream data, and information relating to the stream data stored in said file device in a lump as content information, and

said content information includes a file name, a content title, a reproducing time, a bit rate, quality information for adjusting a transmission band, a parameter necessary for reproducing, a packet identifier, information relating a packet priority, a broadcast starting time, and additional information added by a user,

said selection means selects and extracts program information from the stream data received from the broadcasting network through said reception means, and outputs to said content information management means, and

said setting means obtains said content

information from said content information management means to transmit it to said terminal device when receiving a content management information presentation request from said terminal device, and obtains said content information from said content information management means to perform a stream data transmission processing, an image recording processing, and a recording reservation processing when receiving an attention request, an image recording request, and a recording reservation request from said terminal device, respectively.

15. The stream distribution system according to claim 14, wherein

said setting means executes:

a processing of obtaining said content information from said content information management means to transmit it to said terminal device when receiving a content management information presentation request from said terminal device;

a processing of, when an attention request is accepted from said terminal device, inquiring of said content information management means, wherein if a response form said content information management means is the attention request of the stream data under reception from the broadcasting network or the communication network, said setting means executes processings of changing a setting of said selection means and said

transmission means, selecting and extracting the attention request data, and transmitting it to said terminal device, and wherein if a response form said content information management means is an attention request of the stream data stored in the file device under management of said stream distribution server, said setting means executes processings of changing a setting of said selection means, said transmission means, and said file I/O means, reading the stream data from the file device, and transmitting it to said terminal device; and

a processing of inquiring said contents managing means when a recording request is accepted from said terminal device, wherein if a response form said content information management means is a recording request of the stream data under reception from the broadcasting network or the communication network while not under recording, said setting means executes processings of changing settings of said selection means, said transmission means, and said file I/O means storing the stream data for recording to said file device, and wherein a response form said content information management means is a recording request of the stream data from the broadcasting network or the communication network and under recording processing already, said setting means executes a processing of preventing a overlap recording.

16. The stream distribution system according to claim 9, wherein said setting means changes settings of said selection means and said filter means according to a demand from said terminal device when the stream data is transmitted to said terminal device after the transmission band is adjusted by said filter means, and stores the corresponding stream data before the band is adjusted in said file device.

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